



San Francisco International Airport SCADA

Project Name: SF International Airport Storm Drain & pump SCADA system

Project Location: San Francisco International (SFIA) Airport, California

Consultant: SFIA Engineering

Owner : San Francisco International (SFIA) Airport

General Contractor: BASS Electric

San Francisco Airport, one of the largest and busiest airports on the West Coast, selected FluidIQs to design and build a wireless SCADA System to monitor and control 39 remote pump and storm drain stations located throughout the airport and tarmac (runways).

The wireless remote control of these pump and drain systems provided a highly efficient method of draining water off the tarmac and immediately pumping it back into San Francisco Bay.

FluidIQs fabricated all the panels, implemented the entire PLC programming, provided instruments, terminated all I/O to PLC's and existing control panels, and executed the functional testing onsite, while BASS Electric performed all electrical and installation work.

Technology implemented:

PLC: SCADAPAK-Plus

Radios: Freewave 900 Mhz Spread Spectrum Wireless Radio,
Model FGR- 09CSU Open Board Model Radio

Human Machine Interface (SCADA) : Wonderware 7.11

Data Concentrator: used to handle the data transfer between the Central Control Room and the remote stations

Reports: created using SmartAutomation's Report Builder.

In addition, one site involved in the project was redesigned to be 100% solar powered to monitor a canal level using an ultrasonic level transducer. A major challenge overcome by FluidIQs in the installation of the project was achieving radio communication between all 39 sites. The vast amount of interference encountered at the airport site and lack of a straight line communications path to the central control room antenna named it necessary to utilize multiple repeater stations for reliable communications.